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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,251	02/06/2006	Masumi Dakemoto	1163-0550PUS1	3052

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EXAMINER	
VIRANY, LESLIE R	

ART UNIT	PAPER NUMBER
2622	

NOTIFICATION DATE	DELIVERY MODE
07/30/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.	Applicant(s)	
	10/567,251	DAKEMOTO ET AL.	
	Examiner	Art Unit	
	LESLIE VIRANY	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 April 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,6 and 7* is/are rejected.

7)☒ Claim(s) *4 and 5* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 February 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-3, 6 & 7 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1, 2, 8 & 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagaoka (US 20020044205) in view of Asano. (US 20030120365)

Regarding claim 1, Nagaoka teaches an image pickup apparatus comprising: a solid-state image pickup device for acquiring an image signal by photoelectric conversion of an optical image formed; [FIG. 1 solid-state imaging device 1] signal amplifying means for amplifying, [FIG. 1 amplifier 3]

Nagaoka further teaches gain calculating means for calculating gains [Note in §0046 that FIG. 1 calculating section 15, flicker detecting section 16 and switching section 17 control gain]

Nagaoka further teaches calculating gains according to the maximum values, and adjusting the average values to a maximum range [§0019, lines 6-9]

Nagaoka fails to teach that flicker correction is conducted with respect to the individual color components, as claimed.

However Asano teaches amplifying the image signal supplied from said solid-state image pickup device, all pixels of color components of an image according to given gains of the individual color components; average value calculating means for calculating average values of pixel values of individual color components constituting an image of each frame generated by said signal amplifying means; [§0090, lines 12-20] and gain calculating means for calculating gains by comparing average values of the pixel values of the individual color components of the image, [§0100 flicker correction for each color component] calculated by said average value calculating means for all the frames in one cycle of flicker generation, calculating maximum values using the average values for all the frames in one cycle of flicker generation, [§0035, lines 6-11]

Asano further teaches outputting the gains as gains of the individual color components to be supplied to said signal amplifying means. [§0100 flicker correction for each color component] Note also that Asano suggests implementing his method in a camera . [§0047]

It would have been obvious to one having ordinary skill in the art at the time of invention to have incorporated the color component-based average value flicker

correction of Asano in the flicker-correcting camera of Nagaoka in order to provide a camera with color-dependent value flicker correction, as taught by Asano.

Regarding claim 2, claim 2 directed towards a digital image sensing system incorporating the limitations of claim 1. Nagaoka discloses a digital camera. [Nagaoka FIG. 1 A/D converter 4]

Regarding claim 8, claim 8 is directed towards method steps which correspond to the means of the system disclosed in claim 1, and is likewise rejected.

Regarding claim 9, claim 9 is directed towards method steps which correspond to the means of the system disclosed in claim 2, and is likewise rejected.

2. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nagaoka in view of Asano as applied to claim 2 above, and further in view of Stoll. (US 20050062625).

Regarding claim 3. claim 3 is directed towards the use of digital gain calculation in the device disclosed in claim 2, addressed above The combination of Nagaoka and Asano teaches the limitations as discussed above in connection with claim 2 including flicker generation but fail to teach calculation of flicker cycle deviation as claimed.

However Stoll teaches digital gain calculating means calculating deviation of a cycle caused by a power supply frequency error from average values. [§0029, lines 1-9]

It would have been obvious to one having ordinary skill in the art at the time of invention to have incorporated the power supply frequency deviation compensator of Stoll in the flicker-correcting camera of Nagaoka and Asano in order to prevent interference between power supply frequency and clocked camera frame frequency, as taught by Stoll.

3. Claims 6 & 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagaoka in view of Asano as applied to claim 2 above, and further in view of Kim. (US 20040080630)

Regarding claim 6. the combination of Nagaoka and Asano teaches the limitations as discussed above in connection with claim 2 but fail to teach exposure time calculating means as claimed.

However Kim teaches exposure time calculating means for calculating, as to the number of frames of one cycle of the flicker generation, a maximum value of the average values of the pixel values of a particular color component. [Fig. 5, integration time controller 53]

It would have been obvious to one having ordinary skill in the art at the time of invention to have incorporated the exposure time calculating means of Kim in the flicker-

correcting camera of Nagaoka and Asano in order to adjust the exposure time to match the flicker, as taught by Kim.

Regarding claim 7, the combination of Nagaoka and Asano teaches teach the limitations as discussed above in connection with claim 2 and but fail to teach analog signal amplification as claimed.

However Kim teaches comprising analog signal amplifying means, which is placed before said AD converter, for amplifying an analog image signal supplied from said solid-state image pickup device according to a given analog gain of the individual color components; [Fig.1, programmable amplifying unit 14, note placed before ADC]

It would have been obvious to one having ordinary skill in the art at the time of invention to have incorporated the analog signal amplification of Kim in the flicker-correcting camera of Nagaoka and Asano in order to alleviate processor-intensive calculating during photographing, as taught by Kim.

Allowable Subject Matter

Claims 4 & 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LESLIE VIRANY whose telephone number is (571)270-5893. The examiner can normally be reached on M-Th 7:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571)272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LV

/Jason Chan/

Supervisory Patent Examiner, Art Unit 2622